

**From:** [SMITH, MARTIN L](#)  
**To:** [Jump, Christine](#)  
**Subject:** FW: Lab analytic clarification - Wichita closure  
**Date:** Tuesday, January 28, 2014 10:35:32 AM  
**Attachments:** [work plan table.pdf](#)

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Chris, the original email to Akhter with the clarifications as to what to use for the final rinse analyte list for partial closure, is below.

## ***Safety Starts With Me: Live It 3-6-5***

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### **Martin L. Smith**

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**From:** SMITH, MARTIN L  
**Sent:** Sunday, January 12, 2014 4:17 PM  
**To:** 'Akhter Hossain'  
**Cc:** 'Jeff Dexter'; Bley, Steven A; Grater, Lee R; 'Brady Gerber'  
**Subject:** Lab analytic clarification - Wichita closure  
**Importance:** High

Akhter, I am writing to clarify our analytic methods to be used for the final closure rinses pursuant to the July 22, 2013 project Management Site Implementation and Work Plan for the Clean harbors (Wichita) facility, the January 29, 2013 Closure Plan Appendix J-C, *Closure Plan for Buildings B, D and J*, and your letter of June 20, 2013 with comments on the subject work plan, QAPP and SAP for Buildings B,D and J.

On page 2 of the Buildings B, D and J Closure plan (Rev. 19), a table is presented showing a column of analytes and a corresponding analytic method for each analyte or group of analytes. A note is included below the table stating, "A detail analyte list is contained in Closure Plan for Buildings B, D, and J Appendix A Laboratory Analytical Method Detection Limits (MDL)." A copy of the referenced Appendix A is included with this email. Also note that under Section J-3a of the subject closure plan (Page 2), reference is made to the Tier 2 risk-based standards for residential soil to groundwater

pathway, which appears in the Risk Based Standards for Kansas (RSK), 2010 document published by KDHE. The note indicates that rinse water will be compared to these standards as the closure performance target levels for rinse water at the Wichita site.

Clean Harbors will use the methods listed in Appendix A, attached, for aqueous samples. It is our understanding that we will be required to meet the risk-based standards from the Tier 2 Table in the RSK manual for rinsewater. In the case where no Tier 2 standard is listed for a specific compound, the MDL listed in Appendix A will be used as the limit for such compounds.

This clarification is submitted in light of possible confusion surrounding the use of Tables 1 and 2 of the SAP and QAPP. Those tables include various methods and MDLs by method for soils as well as aqueous matrices.

Please call me with any questions you may have. As always, we appreciate your assistance in helping us to move forward with our Wichita projects.

### ***Safety Starts With Me: Live It 3-6-5***

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\*\*\*\*\* ATTACHMENT NOT DELIVERED \*\*\*\*\*

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For further information, please contact the EPA Call Center at  
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

\*\*\*\*\* ATTACHMENT NOT DELIVERED \*\*\*\*\*

## TABLES

Compound List Report  
Product: AB8270STD Semivolatiles  
Matrix: AQ Aqueous

Method List: AB8270 AQ  
Report List: AB8270 ALL  
RL/MDL Factor: 1

Method Ref: SW846 8270D  
ABN Full List

Compound	CAS No.	RL	MDL	Units	Control Limits (%)		Rev: 10/23/10	
					MS/MSD	RPD	BS	DUP
Benzoic Acid	65-85-0	50	10	ug/l	10-150		40 10-150	40
2-Chlorophenol	95-57-8	5	0.5	ug/l	44-103		29 44-103	29
4-Chloro-3-methyl phenol	59-50-7	5	0.5	ug/l	53-105		24 53-105	24
2,4-Dichlorophenol	120-83-2	5	0.5	ug/l	53-108		26 53-108	26
2,4-Dimethylphenol	105-67-9	5	1.1	ug/l	37-91		28 37-91	28
2,4-Dinitrophenol	51-28-5	25	10	ug/l	37-111		30 37-111	30
4,6-Dinitro-o-cresol	534-52-1	10	2	ug/l	62-115		26 62-115	26
2-Methylphenol	95-48-7	5	0.54	ug/l	35-91		30 35-91	30
3&4-Methylphenol		5	1.1	ug/l	32-85		29 32-85	29
2-Nitrophenol	88-75-5	5	0.54	ug/l	49-111		30 49-111	30
4-Nitrophenol	100-02-7	25	5	ug/l	13-55		31 13-55	31
Pentachlorophenol	87-86-5	25	5.4	ug/l	57-118		26 57-118	26
Phenol	108-95-2	5	0.5	ug/l	13-54		34 13-54	34
2,4,5-Trichlorophenol	95-95-4	5	0.5	ug/l	59-106		23 59-106	23
2,4,6-Trichlorophenol	88-06-2	5	0.5	ug/l	58-107		24 58-107	24
Acenaphthene	83-32-9	5	0.5	ug/l	58-106		21 58-106	21
Acenaphthylene	208-96-8	5	0.5	ug/l	58-105		21 58-105	21
Aniline	62-53-3	5	0.52	ug/l	43-98		28 43-98	28
Anthracene	120-12-7	5	0.5	ug/l	65-108		19 65-108	19
Benzidine	92-87-5	25	4.7	ug/l	15-73		23 15-73	23
Benzo(a)anthracene	56-55-3	5	0.5	ug/l	63-111		19 63-111	19
Benzo(a)pyrene	50-32-8	5	0.5	ug/l	62-106		20 62-106	20
Benzo(b)fluoranthene	205-99-2	5	0.5	ug/l	63-109		20 63-109	20
Benzo(g,h,i)perylene	191-24-2	5	0.5	ug/l	61-111		21 61-111	21
Benzo(k)fluoranthene	207-08-9	5	0.5	ug/l	64-111		20 64-111	20
4-Bromophenyl phenyl ether	101-55-3	5	0.5	ug/l	64-107		20 64-107	20
Butyl benzyl phthalate	85-68-7	5	1.1	ug/l	59-114		20 59-114	20
Benzyl Alcohol	100-51-6	5	1	ug/l	34-98		27 34-98	27
2-Chloronaphthalene	91-58-7	5	0.5	ug/l	54-105		24 54-105	24
4-Chloroaniline	106-47-8	5	0.5	ug/l	53-103		22 53-103	22
Carbazole	86-74-8	5	0.5	ug/l	66-109		20 66-109	20
Chrysene	218-01-9	5	0.5	ug/l	64-111		19 64-111	19
bis(2-Chloroethoxy)methane	111-91-1	5	0.5	ug/l	48-101		28 48-101	28
bis(2-Chloroethyl)ether	111-44-4	5	0.54	ug/l	51-108		27 51-108	27
bis(2-Chloroisopropyl)ether	108-60-1	5	0.54	ug/l	43-106		27 43-106	27
4-Chlorophenyl phenyl ether	7005-72-3	5	0.5	ug/l	61-107		20 61-107	20
1,2-Dichlorobenzene	95-50-1	5	1	ug/l	41-102		28 41-102	28
1,2-Diphenylhydrazine	122-66-7	5	0.5	ug/l	61-110		20 61-110	20
1,3-Dichlorobenzene	541-73-1	5	1	ug/l	38-100		28 38-100	28
1,4-Dichlorobenzene	106-46-7	5	1	ug/l	40-100		28 40-100	28
2,4-Dinitrotoluene	121-14-2	5	0.5	ug/l	60-109		20 60-109	20

2,6-Dinitrotoluene	606-20-2	5	0.5 ug/l	58-104	21 58-104	21
3,3'-Dichlorobenzidine	91-94-1	10	1 ug/l	57-105	25 57-105	25
Dibenzo(a,h)anthracene	53-70-3	5	0.52 ug/l	62-112	20 62-112	20
Dibenzofuran	132-64-9	5	0.5 ug/l	61-108	20 61-108	20
Di-n-butyl phthalate	84-74-2	5	0.87 ug/l	62-109	20 62-109	20
Di-n-octyl phthalate	117-84-0	5	1.1 ug/l	60-120	24 60-120	24
Diethyl phthalate	84-66-2	5	1.1 ug/l	62-109	19 62-109	19
Dimethyl phthalate	131-11-3	5	0.99 ug/l	63-106	19 63-106	19
bis(2-Ethylhexyl)phthalate	117-81-7	5	1.1 ug/l	59-116	21 59-116	21
Fluoranthene	206-44-0	5	0.5 ug/l	65-114	21 65-114	21
Fluorene	86-73-7	5	0.5 ug/l	61-106	19 61-106	19
Hexachlorobenzene	118-74-1	5	0.56 ug/l	62-107	20 62-107	20
Hexachlorobutadiene	87-68-3	5	1 ug/l	38-107	30 38-107	30
Hexachlorocyclopentadiene	77-47-4	10	1.9 ug/l	19-84	35 19-84	35
Hexachloroethane	67-72-1	5	1 ug/l	35-101	29 35-101	29
Indeno(1,2,3-cd)pyrene	193-39-5	5	0.5 ug/l	61-113	20 61-113	20
Isophorone	78-59-1	5	0.5 ug/l	56-111	26 56-111	26
1-Methylnaphthalene	90-12-0	5	0.5 ug/l	52-102	25 52-102	25
2-Methylnaphthalene	91-57-6	5	0.57 ug/l	56-112	26 56-112	26
2-Nitroaniline	88-74-4	5	0.5 ug/l	60-109	20 60-109	20
3-Nitroaniline	99-09-2	5	0.5 ug/l	52-107	21 52-107	21
4-Nitroaniline	100-01-6	5	0.5 ug/l	59-111	21 59-111	21
Naphthalene	91-20-3	5	0.8 ug/l	50-104	28 50-104	28
Nitrobenzene	98-95-3	5	0.59 ug/l	52-105	28 52-105	28
N-Nitrosodimethylamine	62-75-9	5	2.4 ug/l	20-71	32 20-71	32
N-Nitroso-di-n-propylamine	621-64-7	5	0.5 ug/l	51-104	28 51-104	28
N-Nitrosodiphenylamine	86-30-6	5	1 ug/l	57-110	19 57-110	19
Phenanthrene	85-01-8	5	0.5 ug/l	65-108	20 65-108	20
Pyrene	129-00-0	5	0.5 ug/l	60-113	20 60-113	20
Pyridine	110-86-1	10	1.6 ug/l	15-67	40 15-67	40
1,2,4-Trichlorobenzene	120-82-1	5	0.5 ug/l	45-104	28 45-104	28
2-Fluorophenol	367-12-4			Surrogate Limits:	14-62	
Phenol-d5	4165-62-2			Surrogate Limits:	Oct-40	
2,4,6-Tribromophenol	118-79-6			Surrogate Limits:	33-118	
Nitrobenzene-d5	4165-60-0			Surrogate Limits:	42-108	
2-Fluorobiphenyl	321-60-8			Surrogate Limits:	40-106	
Terphenyl-d14	1718-51-0			Surrogate Limits:	39-121	

72 compounds and 6 surrogates reported in list AB8270



## AB8270STD solid

Compound	CAS No.	RL	MDL	Units	MS/MSD	RPD	BS	DUP
Benzoic Acid	65-85-0	830	290	ug/kg	44-116		36 44-116	36
2-Chlorophenol	95-57-8	170	17	ug/kg	54-97		31 54-97	31
4-Chloro-3-methyl phenol	59-50-7	170	17	ug/kg	59-102		27 59-102	27
2,4-Dichlorophenol	120-83-2	170	17	ug/kg	60-101		30 60-101	30
2,4-Dimethylphenol	105-67-9	170	21	ug/kg	49-89		31 49-89	31
2,4-Dinitrophenol	51-28-5	830	330	ug/kg	39-107		40 39-107	40
4,6-Dinitro-o-cresol	534-52-1	330	67	ug/kg	58-109		37 58-109	37
2-Methylphenol	95-48-7	170	17	ug/kg	53-94		29 53-94	29
3&4-Methylphenol		170	24	ug/kg	54-95		31 54-95	31
2-Nitrophenol	88-75-5	170	17	ug/kg	55-96		30 55-96	30
4-Nitrophenol	100-02-7	830	130	ug/kg	56-106		29 56-106	29
Pentachlorophenol	87-86-5	830	200	ug/kg	50-115		33 50-115	33
Phenol	108-95-2	170	17	ug/kg	55-99		28 55-99	28
2,4,5-Trichlorophenol	95-95-4	170	17	ug/kg	60-101		28 60-101	28
2,4,6-Trichlorophenol	88-06-2	170	17	ug/kg	60-100		27 60-100	27
Acenaphthene	83-32-9	170	17	ug/kg	59-97		29 59-97	29
Acenaphthylene	208-96-8	170	17	ug/kg	58-98		30 58-98	30
Aniline	62-53-3	170	33	ug/kg	38-92		38 38-92	38
Anthracene	120-12-7	170	17	ug/kg	61-104		29 61-104	29
Benzidine	92-87-5	1700	330	ug/kg	10-151		50 10-156	
Benzo(a)anthracene	56-55-3	170	17	ug/kg	60-106		31 60-106	31
Benzo(a)pyrene	50-32-8	170	17	ug/kg	59-102		32 59-102	32
Benzo(b)fluoranthene	205-99-2	170	17	ug/kg	60-107		31 60-107	31
Benzo(g,h,i)perylene	191-24-2	170	17	ug/kg	56-103		32 56-103	32
Benzo(k)fluoranthene	207-08-9	170	17	ug/kg	61-107		30 61-107	30
4-Bromophenyl phenyl ether	101-55-3	170	17	ug/kg	60-104		26 60-104	26
Butyl benzyl phthalate	85-68-7	170	33	ug/kg	57-110		28 57-110	28
Benzyl Alcohol	100-51-6	170	33	ug/kg	51-102		34 51-102	34
2-Chloronaphthalene	91-58-7	170	33	ug/kg	57-95		28 57-95	28
4-Chloroaniline	106-47-8	170	17	ug/kg	19-85		34 19-85	34
Carbazole	86-74-8	170	17	ug/kg	60-106		30 60-106	30
Chrysene	218-01-9	170	17	ug/kg	60-107		31 60-107	31
bis(2-Chloroethoxy)methane	111-91-1	170	17	ug/kg	51-89		30 51-89	30
bis(2-Chloroethyl)ether	111-44-4	170	17	ug/kg	50-96		33 50-96	33
bis(2-Chloroisopropyl)ether	108-60-1	170	17	ug/kg	44-94		32 44-94	32
4-Chlorophenyl phenyl ether	7005-72-3	170	17	ug/kg	60-101		26 60-101	26
1,2-Dichlorobenzene	95-50-1	170	33	ug/kg	47-91		35 47-91	35
1,2-Diphenylhydrazine	122-66-7	170	17	ug/kg	58-104		27 58-104	27
1,3-Dichlorobenzene	541-73-1	170	33	ug/kg	45-86		36 45-86	36
1,4-Dichlorobenzene	106-46-7	170	33	ug/kg	45-88		36 45-88	36
2,4-Dinitrotoluene	121-14-2	170	17	ug/kg	59-103		30 59-103	30
2,6-Dinitrotoluene	606-20-2	170	20	ug/kg	57-99		30 57-99	30
3,3'-Dichlorobenzidine	91-94-1	330	33	ug/kg	34-88		31 34-88	31
Dibenzo(a,h)anthracene	53-70-3	170	17	ug/kg	57-105		29 57-105	29
Dibenzofuran	132-64-9	170	17	ug/kg	58-103		27 58-103	27
Di-n-butyl phthalate	84-74-2	330	67	ug/kg	59-105		27 59-105	27
Di-n-octyl phthalate	117-84-0	170	33	ug/kg	59-117		28 59-117	28
Diethyl phthalate	84-66-2	330	67	ug/kg	59-106		27 59-106	27

Dimethyl phthalate	131-11-3	170	33 ug/kg	60-100	26 60-100	26
bis(2-Ethylhexyl)phthalate	117-81-7	330	67 ug/kg	57-111	29 57-111	29
Fluoranthene	206-44-0	170	17 ug/kg	60-110	32 60-110	32
Fluorene	86-73-7	170	17 ug/kg	60-99	30 60-99	30
Hexachlorobenzene	118-74-1	170	17 ug/kg	58-103	27 58-103	27
Hexachlorobutadiene	87-68-3	170	33 ug/kg	49-95	33 49-95	33
Hexachlorocyclopentadiene	77-47-4	170	73 ug/kg	36-94	41 36-94	41
Hexachloroethane	67-72-1	170	33 ug/kg	44-89	38 44-89	38
Indeno(1,2,3-cd)pyrene	193-39-5	170	17 ug/kg	57-104	33 57-104	33
Isophorone	78-59-1	170	17 ug/kg	58-97	30 58-97	30
1-Methylnaphthalene	90-12-0	170	17 ug/kg	55-93	33 55-93	33
2-Methylnaphthalene	91-57-6	170	17 ug/kg	57-103	32 57-103	32
2-Nitroaniline	88-74-4	170	33 ug/kg	53-106	29 53-106	29
3-Nitroaniline	99-09-2	170	33 ug/kg	29-85	31 29-85	31
4-Nitroaniline	100-01-6	170	33 ug/kg	49-104	31 49-104	31
Naphthalene	91-20-3	170	27 ug/kg	54-93	32 54-93	32
Nitrobenzene	98-95-3	170	17 ug/kg	53-92	32 53-92	32
N-Nitrosodimethylamine	62-75-9	330	70 ug/kg	37-88	34 37-88	34
N-Nitroso-di-n-propylamine	621-64-7	170	17 ug/kg	49-94	28 49-94	28
N-Nitrosodiphenylamine	86-30-6	170	17 ug/kg	53-107	28 53-107	28
Phenanthrene	85-01-8	170	17 ug/kg	61-103	32 61-103	32
Pyrene	129-00-0	170	17 ug/kg	58-109	33 58-109	33
Pyridine	110-86-1	330	67 ug/kg	30-68	38 30-68	38
1,2,4-Trichlorobenzene	120-82-1	170	17 ug/kg	52-93	32 52-93	32
2-Fluorophenol	367-12-4			Surrogate Limits:	40-102	
Phenol-d5	4165-62-2			Surrogate Limits:	41-100	
2,4,6-Tribromophenol	118-79-6			Surrogate Limits:	42-108	
Nitrobenzene-d5	4165-60-0			Surrogate Limits:	40-105	
2-Fluorobiphenyl	321-60-8			Surrogate Limits:	43-107	
Terphenyl-d14	1718-51-0			Surrogate Limits:	45-119	

72 compounds and 6 surrogates reported in list AB8270



Compound List Report  
Product: P8081PESTTCL Pesticides, TCL  
Matrix: SO Solid

Method List: P8081 SO  
Report List: PTCL ALL  
RL/MDL Factor: 0.33

Method Ref: SW846 8081B  
Pesticide TCL List

LF17812  
LJ1046

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 07/31/08			
					MS/MSD	RPD	BS	DUP
Aldrin	309-00-2	1.7	0.43	ug/kg	57-118		27 57-118	27
alpha-BHC	319-84-6	1.7	0.36	ug/kg	65-116		23 65-116	23
beta-BHC	319-85-7	1.7	0.36	ug/kg	63-124		20 63-124	20
delta-BHC	319-86-8	1.7	0.33	ug/kg	41-127		25 41-127	25
gamma-BHC (Lindane)	58-89-9	1.7	0.4	ug/kg	68-121		22 68-121	22
alpha-Chlordane	5103-71-9	1.7	0.36	ug/kg	69-120		33 69-120	28
gamma-Chlordane	5103-74-2	1.7	0.36	ug/kg	70-123		34 70-123	34
Dieldrin	60-57-1	1.7	0.36	ug/kg	69-122		25 69-122	25
4,4'-DDD	72-54-8	3.3	0.43	ug/kg	63-135		28 63-135	28
4,4'-DDE	72-55-9	3.3	0.4	ug/kg	66-127		28 66-127	28
4,4'-DDT	50-29-3	3.3	0.43	ug/kg	66-142		28 66-142	28
Endrin	72-20-8	3.3	0.4	ug/kg	69-135		24 69-135	24
Endosulfan sulfate	1031-07-8	3.3	0.36	ug/kg	61-126		25 61-126	25
Endrin aldehyde	7421-93-4	3.3	0.43	ug/kg	5-113		30 5-113	30
Endrin ketone	53494-70-8	3.3	0.36	ug/kg	64-135		23 64-135	23
Endosulfan-I	959-98-8	1.7	0.33	ug/kg	68-119		20 68-119	20
Endosulfan-II	33213-65-8	1.7	0.33	ug/kg	65-124		19 65-124	19
Heptachlor	76-44-8	1.7	0.4	ug/kg	65-123		26 65-123	26
Heptachlor epoxide	1024-57-3	1.7	0.33	ug/kg	69-117		26 69-117	26
Methoxychlor	72-43-5	3.3	0.66	ug/kg	66-139		23 66-139	23
Toxaphene	8001-35-2	83	33	ug/kg	50-150		30 50-150	30
Tetrachloro-m-xylene	877-09-8				Surrogate Limits: 46-122			
Decachlorobiphenyl	2051-24-3				Surrogate Limits: 50-133			

21 compounds and 2 surrogates reported in list PTCL

Compound List Report  
Product: P8081PESTTCL Pesticides, TCL  
Matrix: AQ Aqueous

Method List: P8081 AQ  
Report List: PTCL ALL  
RL/MDL Factor: 0.01

Method Ref: SW846 8081B  
Pesticide TCL List

LF17679  
LJ1046

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 01/16/07			DUP
					MS/MSD	RPD	BS	
Aldrin	309-00-2	0.05	0.005 ug/l		72-122		16 72-122	16
alpha-BHC	319-84-6	0.05	0.005 ug/l		77-132		16 77-132	16
beta-BHC	319-85-7	0.05	0.005 ug/l		73-132		17 73-132	17
delta-BHC	319-86-8	0.05	0.005 ug/l		43-127		30 43-127	30
gamma-BHC (Lindane)	58-89-9	0.05	0.005 ug/l		80-136		17 80-136	17
alpha-Chlordane	5103-71-9	0.05	0.005 ug/l		75-131		16 75-131	16
gamma-Chlordane	5103-74-2	0.05	0.005 ug/l		79-136		17 79-136	17
Dieldrin	60-57-1	0.05	0.005 ug/l		80-136		16 80-136	16
4,4'-DDD	72-54-8	0.1	0.01 ug/l		64-154		25 64-154	25
4,4'-DDE	72-55-9	0.1	0.01 ug/l		65-146		21 65-146	21
4,4'-DDT	50-29-3	0.1	0.01 ug/l		62-143		28 62-143	28
Endrin	72-20-8	0.1	0.01 ug/l		75-139		15 75-139	15
Endosulfan sulfate	1031-07-8	0.1	0.01 ug/l		62-138		24 62-138	24
Endrin aldehyde	7421-93-4	0.1	0.01 ug/l		5-139		44 5-139	44
Endrin ketone	53494-70-8	0.1	0.01 ug/l		76-132		17 76-132	17
Endosulfan-I	959-98-8	0.05	0.005 ug/l		72-140		19 72-140	19
Endosulfan-II	33213-65-8	0.05	0.005 ug/l		75-139		16 75-139	16
Heptachlor	76-44-8	0.05	0.005 ug/l		71-143		15 71-143	15
Heptachlor epoxide	1024-57-3	0.05	0.005 ug/l		78-129		17 78-129	17
Methoxychlor	72-43-5	0.1	0.02 ug/l		63-140		20 63-140	20
Toxaphene	8001-35-2	2.5	1 ug/l		50-150		20 50-150	20
Tetrachloro-m-xylene	877-09-8				Surrogate Limits: 42-127			
Decachlorobiphenyl	2051-24-3				Surrogate Limits: 27-127			

21 compounds and 2 surrogates reported in list PTCL

Compound List Report

Product: P8082PCB Polychlorinated Biphenyls

Matrix: SO Solid

Method List: P8082 SO

Report List: PCB ALL

RL/MDL Factor: 0.33

Method Ref: SW846 8082A

PCB List

LF16973

LF2924

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 04/25/07		
					MS/MSD	RPD	BS
Aroclor 1016	12674-11-2	17	6.6 ug/kg		69-117	26	69-117
Aroclor 1221	11104-28-2	17	8.3 ug/kg		60-140	30	60-140
Aroclor 1232	11141-16-5	17	8.3 ug/kg		70-130	30	70-130
Aroclor 1242	53469-21-9	17	6.6 ug/kg		70-130	30	70-130
Aroclor 1248	12672-29-6	17	6.6 ug/kg		70-130	30	70-130
Aroclor 1254	11097-69-1	17	6.6 ug/kg		70-130	30	70-130
Aroclor 1260	11096-82-5	17	6.6 ug/kg		71-121	30	71-121

Tetrachloro-m- 877-09-8

Decachlorobip 2051-24-3

Surrogate Limits: 44-126

Surrogate Limits: 39-157

7 compounds and 2 surrogates reported in list PCB

Compound List Report

Product: P8082PCB Polychlorinated Biphenyls

Matrix: AQ Aqueous

Method List: P8082 AQ

Method Ref: SW846 8082A

LF16970

Report List: PCB ALL

PCB List

LF2924

RL/MDL Factor: 0.01

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 04/25/07		BS	DUP
					MS/MSD	RPD		
Aroclor 1016	12674-11-2	0.5	0.2 ug/l		76-117		16 76-117	16
Aroclor 1221	11104-28-2	0.5	0.25 ug/l		60-140		30 60-140	30
Aroclor 1232	11141-16-5	0.5	0.25 ug/l		70-130		30 70-130	30
Aroclor 1242	53469-21-9	0.5	0.2 ug/l		70-130		30 70-130	30
Aroclor 1248	12672-29-6	0.5	0.2 ug/l		70-130		30 70-130	30
Aroclor 1254	11097-69-1	0.5	0.2 ug/l		70-130		30 70-130	30
Aroclor 1260	11096-82-5	0.5	0.2 ug/l		65-117		23 65-117	23

Tetrachloro-m-xyl 877-09-8  
Decachlorobiphenyl 2051-24-3

Surrogate Limits: 38-127  
Surrogate Limits: 25-137

7 compounds and 2 surrogates reported in list PCB

Parm_Syn	Units	6010 AQ			Units	6010 SO		
		DL	LOD	LOQ		DL	LOD	LOQ
Aluminum	ug/l	25	25	200	mg/kg	1.2	1.25	10
Antimony	ug/l	2	2	6	mg/kg	0.1	0.1	1
Arsenic	ug/l	2	2	10	mg/kg	0.1	0.1	0.5
Barium	ug/l	5	5	200	mg/kg	0.5	0.5	10
Beryllium	ug/l	1	1	4	mg/kg	0.05	0.05	0.25
Cadmium	ug/l	1	1	5	mg/kg	0.05	0.05	0.2
Calcium	ug/l	100	100	1000	mg/kg	5	5	250
Chromium	ug/l	1	1	10	mg/kg	0.05	0.05	0.5
Cobalt	ug/l	1	1	50	mg/kg	0.05	0.05	2.5
Copper	ug/l	2	2	25	mg/kg	0.1	0.1	1.25
Iron	ug/l	35	50	300	mg/kg	1.7	2.5	15
Lead	ug/l	1	1	5	mg/kg	0.05	0.05	1
Magnesium	ug/l	100	100	5000	mg/kg	5	5	250
Manganese	ug/l	1	1	15	mg/kg	0.05	0.05	0.75
Molybdenum	ug/l	2	2	50	mg/kg	0.05	0.05	2.5
Nickel	ug/l	2	2	40	mg/kg	0.05	0.05	2
Potassium	ug/l	500	500	10000	mg/kg	25	25	500
Selenium	ug/l	2	2	10	mg/kg	0.2	0.2	1
Silver	ug/l	1	1	10	mg/kg	0.05	0.05	0.5
Sodium	ug/l	1900	2000	10000	mg/kg	55	100	500
Strontium	ug/l	1	1	10	mg/kg	0.05	0.05	0.5
Thallium	ug/l	1.85	2	10	mg/kg	0.13	0.25	0.5
Tin	ug/l	1	1	50	mg/kg	0.05	0.05	2.5
Titanium	ug/l	2	2	10	mg/kg	0.1	0.1	0.5
Vanadium	ug/l	1	1	50	mg/kg	0.05	0.05	2.5
Zinc	ug/l	5	5	20	mg/kg	0.25	0.25	1
Mercury (7470/7471)	ug/l	0.071		1	ug/kg	0.0103		0.083



Compound List Report  
Product: H8151FL Herbicides, Full List  
Matrix: AQ Aqueous

Method List: H8151 AQ  
Report List: HERBFL ALL  
RL/MDL Factor: 0.01

Method Ref: SW846 8151A  
Herbicide List

LF1766  
LF1446

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 12/18/07			DUP
					MS/MSD	RPD	BS	
2,4-D	94-75-7	1	0.25 ug/l		40-140		30 40-140	30
2,4,5-TP (Silvex)	93-72-1	0.1	0.036 ug/l		40-140		30 40-140	30
2,4,5-T	93-76-5	0.1	0.019 ug/l		40-140		30 40-140	30
Dicamba	1918-00-9	0.1	0.025 ug/l		40-140		30 40-140	30
Dinoseb	88-85-7	2	0.5 ug/l		10-140		30 10-140	30
Dalapon	75-99-0	2.5	1 ug/l		20-140		30 20-140	30
Dichloroprop	120-36-5	1	0.21 ug/l		40-140		30 40-140	30
2,4-DB	94-82-6	1	0.44 ug/l		40-140		30 40-140	30
MCPP	93-65-2	100	13 ug/l		40-140		30 40-140	30
MCPA	94-74-6	100	19 ug/l		40-140		30 40-140	30
Pentachlorophenol	87-86-5	0.1	0.021 ug/l		40-140		30 40-140	30

2,4-DCAA                      19719-28-9                      Surrogate Limits:                      40-140

11 compounds and 1 surrogates reported in list HERBFL

Compound List Report  
 Product: H8151FL Herbicides, Full List  
 Matrix: SO Solid

Method List: H8151 SO  
 Report List: HERBFL ALL  
 RL/MDL Factor: 0.33

Method Ref: SW846 8151A  
 Herbicide List

LF17529  
 LF1449

Compound	CAS No.	RL	MDL	Units	Control Limits (%)		Rev: 12/18/07		DUP
					MS/MSD	RPD	BS		
2,4-D	94-75-7	33	10	ug/kg	40-140		30	40-140	30
2,4,5-TP (Silvex)	93-72-1	3.3	1.1	ug/kg	40-140		30	40-140	30
2,4,5-T	93-76-5	3.3	1.1	ug/kg	40-140		30	40-140	30
Dicamba	1918-00-9	3.3	1.4	ug/kg	40-140		30	40-140	30
Dinoseb	88-85-7	83	17	ug/kg	10-140		30	10-140	30
Dalapon	75-99-0	170	33	ug/kg	20-140		30	20-140	30
Dichloroprop	120-36-5	33	12	ug/kg	40-140		30	40-140	30
2,4-DB	94-82-6	33	10	ug/kg	40-140		30	40-140	30
MCP	93-65-2	3300	720	ug/kg	40-140		30	40-140	30
MCPA	94-74-6	3300	1000	ug/kg	40-140		30	40-140	30
Pentachlorophenol	87-86-5	3.3	0.78	ug/kg	40-140		30	40-140	30
2,4-DCAA	19719-28-9				Surrogate Limits:		40-140		

11 compounds and 1 surrogates reported in list HERBFL

Compound List Report  
 Product: V8260STD Volatile Organics  
 Matrix: AQ Aqueous

Nov 22, 2010 03:09 pm

Method List: VAIX826C Method Ref: SW846 8260B

LF17742

The 8260 Sim method will be used 1,4 Dioxane

Report List: V8260 ALL VOA 8260 List

LF3395

RL/MDL Factor: 1

Compound CAS No.	RL	MDL	Units	Control Limits (%) Rev: 10/23/10			
				MS/MSD	RPD	BS	DUP
Acetone 67-64-1	25	10 ug/l	59-134	14	59-134	14	
Acrolein 107-02-8	20	5 ug/l	33-157	21	33-157	21	
Acrylonitril 107-13-1	10	3 ug/l	62-124	13	62-124	13	
Benzene 71-43-2	1	0.2 ug/l	83-124	11	83-124	11	
Bromoben: 108-86-1	1	0.25 ug/l	83-115	10	83-115	10	
Bromochlo 74-97-5	1	0.22 ug/l	78-112	10	78-112	10	
Bromodich 75-27-4	1	0.2 ug/l	76-116	10	76-116	10	
Bromoform 75-25-2	1	0.2 ug/l	68-128	11	68-128	11	
n-Butylben 104-51-8	1	0.26 ug/l	84-124	10	84-124	10	
sec-Butylbe 135-98-8	1	0.22 ug/l	86-127	10	86-127	10	
tert-Butylb 98-06-6	1	0.27 ug/l	83-126	10	83-126	10	
Chloroben: 108-90-7	1	0.2 ug/l	87-115	9	87-115	9	
Chloroetha 75-00-3	2	0.5 ug/l	54-166	20	54-166	20	
Chloroform 67-66-3	1	0.22 ug/l	85-123	10	85-123	10	
o-Chloroto 95-49-8	1	0.22 ug/l	84-121	10	84-121	10	
p-Chloroto 106-43-4	1	0.2 ug/l	84-120	10	84-120	10	
2-Chloroeti 110-75-8	5	1.2 ug/l	63-125	24	63-125	24	
Carbon dis: 75-15-0	2	0.5 ug/l	67-147	12	67-147	12	
Carbon tet: 56-23-5	1	0.25 ug/l	74-139	13	74-139	13	
1,1-Dichlor 75-34-3	1	0.25 ug/l	82-127	10	82-127	10	
1,1-Dichlor 75-35-4	1	0.23 ug/l	75-133	13	75-133	13	
1,1-Dichlor 563-58-6	1	0.28 ug/l	87-127	10	87-127	10	
1,2-Dibrom 96-12-8	2	0.5 ug/l	61-118	15	61-118	15	
1,2-Dibrom 106-93-4	1	0.37 ug/l	80-115	10	80-115	10	
1,2-Dichlor 107-06-2	1	0.2 ug/l	76-122	11	76-122	11	
1,2-Dichlor 78-87-5	1	0.25 ug/l	81-120	11	81-120	11	
1,3-Dichlor 142-28-9	1	0.2 ug/l	81-113	11	81-113	11	
2,2-Dichlor 594-20-7	1	0.44 ug/l	77-138	12	77-138	12	
Dibromoch 124-48-1	1	0.2 ug/l	74-116	11	74-116	11	
Dichlorodif 75-71-8	2	0.5 ug/l	34-158	22	34-158	22	
cis-1,2-Dicl 156-59-2	1	0.26 ug/l	81-114	10	81-114	10	
cis-1,3-Dicl 10061-01-5	1	0.2 ug/l	83-119	10	83-119	10	
m-Dichloro 541-73-1	1	0.2 ug/l	86-115	9	86-115	9	
o-Dichlorol 95-50-1	1	0.25 ug/l	85-115	9	85-115	9	
p-Dichlorol 106-46-7	1	0.23 ug/l	87-113	10	87-113	10	

trans-1,2-D 156-60-5	1	0.35 ug/l	82-126	10 82-126	10
trans-1,3-D 10061-02-6	1	0.2 ug/l	87-123	10 87-123	10
Ethylbenze 100-41-4	1	0.2 ug/l	87-118	10 87-118	10
2-Hexanon 591-78-6	10	4 ug/l	58-125	14 58-125	14
Hexachlorc 87-68-3	2	0.8 ug/l	71-133	12 71-133	12
Isopropylb 98-82-8	1	0.2 ug/l	87-131	10 87-131	10
p-Isopropy 99-87-6	1	0.21 ug/l	83-125	9 83-125	9
4-Methyl-2 108-10-1	5	2 ug/l	62-125	13 62-125	13
Methyl bro 74-83-9	2	0.5 ug/l	55-151	21 55-151	21
Methyl chl 74-87-3	2	0.5 ug/l	55-173	22 55-173	22
Methylene 74-95-3	2	0.25 ug/l	81-116	10 81-116	10
Methylene 75-09-2	5	2 ug/l	69-125	11 69-125	11
Methyl eth 78-93-3	5	2 ug/l	61-127	13 61-127	13
Methyl Ter 1634-04-4	1	0.34 ug/l	75-116	10 75-116	10
Naphthaler 91-20-3	5	1 ug/l	59-125	15 59-125	15
n-Propylbe 103-65-1	1	0.2 ug/l	86-125	10 86-125	10
Styrene 100-42-5	1	0.2 ug/l	78-118	11 78-118	11
1,1,1,2-Tet 630-20-6	1	0.2 ug/l	81-119	10 81-119	10
1,1,1-Trichl 71-55-6	1	0.2 ug/l	79-133	11 79-133	11
1,1,2,2-Tet 79-34-5	1	0.23 ug/l	71-120	11 71-120	11
1,1,2-Trichl 79-00-5	1	0.22 ug/l	80-114	11 80-114	11
1,2,3-Trichl 87-61-6	1	0.5 ug/l	64-126	16 64-126	16
1,2,3-Trichl 96-18-4	2	0.3 ug/l	77-115	12 77-115	12
1,2,4-Trichl 120-82-1	1	0.5 ug/l	68-123	11 68-123	11
1,2,4-Trim 95-63-6	2	0.27 ug/l	82-120	10 82-120	10
1,3,5-Trim 108-67-8	2	0.21 ug/l	83-123	10 83-123	10
Tetrachlorc 127-18-4	1	0.25 ug/l	80-131	12 80-131	12
Toluene 108-88-3	1	0.2 ug/l	86-116	10 86-116	10
Trichloroet 79-01-6	1	0.26 ug/l	85-124	10 85-124	10
Trichlorofl 75-69-4	2	0.5 ug/l	66-156	15 66-156	15
Vinyl chlori 75-01-4	1	0.22 ug/l	57-153	22 57-153	22
Vinyl Aceta 108-05-4	10	2 ug/l	38-159	11 38-159	11
m,p-Xylene	2	0.32 ug/l	86-121	10 86-121	10
o-Xylene 95-47-6	1	0.2 ug/l	83-121	10 83-121	10
1,4 dioxane	2	1 ug/kg	82-126	25 82-126	10
Dibromoflu 1868-53-7			Surrogate Limits:	87-116	
1,2-Dichlor 17060-07-0			Surrogate Limits:	76-127	
Toluene-D 2037-26-5			Surrogate Limits:	86-112	
4-Bromoflu 460-00-4			Surrogate Limits:	84-120	

69 compounds and 4 surrogates reported in list V8260



Compound List Report  
Product: V8260STD Volatile Organics

Matrix: SO Solid

Nov 22, 2010 03:09 pm

Method List: VAIX8260 SO Method Ref: SW846 8260B

LF17743

The 8260 Sim method will be used 1,4 Dioxane

Report List: V8260 ALL

VOA 8260 List

LF3395

RL/MDL Factor: 1

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 10/23/10			
					MS/MSD	RPD	BS	DUP
Acetone	67-64-1	50	20 ug/kg	61-144	29	61-144		
Acrolein	107-02-8	25	11 ug/kg	27-156	39	27-156		
Acrylonitrile	107-13-1	25	11 ug/kg	55-144	24	55-144		
Benzene	71-43-2	5	1.5 ug/kg	78-130	25	78-130		
Bromobenzene	108-86-1	5	1.4 ug/kg	78-123	30	78-123		
Bromochloromethane	74-97-5	5	1.4 ug/kg	72-122	23	72-122		
Bromodichloromethane	75-27-4	5	1.1 ug/kg	73-122	25	73-122		
Bromoform	75-25-2	5	1.5 ug/kg	70-139	26	70-139		
n-Butylbenzene	104-51-8	5	1.3 ug/kg	80-138	31	80-138		
sec-Butylbenzene	135-98-8	5	1.6 ug/kg	82-132	29	82-132		
tert-Butylbenzene	98-06-6	5	1.2 ug/kg	79-130	29	79-130		
Chlorobenzene	108-90-7	5	1 ug/kg	83-122	23	83-122		
Chloroethane	75-00-3	5	2 ug/kg	61-153	31	61-153		
Chloroform	67-66-3	5	1.2 ug/kg	79-129	27	79-129		
o-Chlorotoluene	95-49-8	5	1.2 ug/kg	77-123	31	77-123		
p-Chlorotoluene	106-43-4	5	1.2 ug/kg	78-129	29	78-129		
2-Chloroethyl vinyl ether	110-75-8	25	10 ug/kg	52-142	25	52-142		
Carbon disulfide	75-15-0	5	2 ug/kg	61-142	27	61-142		
Carbon tetrachloride	56-23-5	5	1.8 ug/kg	79-135	29	79-135		
1,1-Dichloroethane	75-34-3	5	1.1 ug/kg	77-132	26	77-132		
1,1-Dichloroethylene	75-35-4	5	1.4 ug/kg	66-132	27	66-132		
1,1-Dichloropropene	563-58-6	5	1.3 ug/kg	81-133	26	81-133		
1,2-Dibromo-3-chloropropane	96-12-8	5	2.3 ug/kg	67-129	29	67-129		
1,2-Dibromoethane	106-93-4	5	1 ug/kg	77-126	24	77-126		
1,2-Dichloroethane	107-06-2	5	1 ug/kg	78-129	24	78-129		
1,2-Dichloropropane	78-87-5	5	1.2 ug/kg	74-127	27	74-127		
1,3-Dichloropropane	142-28-9	5	1 ug/kg	78-118	26	78-118		
2,2-Dichloropropane	594-20-7	5	1.4 ug/kg	80-137	28	80-137		
Dibromochloromethane	124-48-1	5	1 ug/kg	78-117	27	78-117		
Dichlorodifluoromethane	75-71-8	5	1.5 ug/kg	35-162	30	35-162		
cis-1,2-Dichloroethylene	156-59-2	5	1.5 ug/kg	74-123	26	74-123		
cis-1,3-Dichloropropene	10061-01-5	5	1 ug/kg	79-130	23	79-130		
m-Dichlorobenzene	541-73-1	5	1.2 ug/kg	82-126	29	82-126		



o-Dichlorobenzene	95-50-1	5	1.1 ug/kg	83-123	28 83-123
p-Dichlorobenzene	106-46-7	5	1.1 ug/kg	84-124	28 84-124
trans-1,2-Dichloroethyle	156-60-5	5	1.5 ug/kg	77-129	27 77-129
trans-1,3-Dichloroprope	10061-02-6	5	1.1 ug/kg	87-131	27 87-131
Ethylbenzene	100-41-4	5	1 ug/kg	82-124	25 82-124
2-Hexanone	591-78-6	25	5.4 ug/kg	67-130	29 67-130
Hexachlorobutadiene	87-68-3	5	2 ug/kg	77-150	36 77-150
Isopropylbenzene	98-82-8	5	1.1 ug/kg	82-133	27 82-133
p-Isopropyltoluene	99-87-6	5	1.2 ug/kg	82-132	29 82-132
4-Methyl-2-pentanone	108-10-1	25	5.5 ug/kg	69-125	24 69-125
Methyl bromide	74-83-9	5	2 ug/kg	60-146	31 60-146
Methyl chloride	74-87-3	5	2 ug/kg	58-163	26 58-163
Methylene bromide	74-95-3	5	1.5 ug/kg	75-128	26 75-128
Methylene chloride	75-09-2	10	4.6 ug/kg	62-140	25 62-140
Methyl ethyl ketone	78-93-3	25	6.1 ug/kg	66-134	23 66-134
Methyl Tert Butyl Ether	1634-04-4	5	2 ug/kg	70-131	25 70-131
Naphthalene	91-20-3	5	2 ug/kg	59-143	31 59-143
n-Propylbenzene	103-65-1	5	1.4 ug/kg	78-129	29 78-129
Styrene	100-42-5	5	2.6 ug/kg	79-123	28 79-123
1,1,1,2-Tetrachloroethane	630-20-6	5	1 ug/kg	81-121	25 81-121
1,1,1-Trichloroethane	71-55-6	5	1.1 ug/kg	80-133	27 80-133
1,1,2,2-Tetrachloroethane	79-34-5	5	1.2 ug/kg	70-128	30 70-128
1,1,2-Trichloroethane	79-00-5	5	1.1 ug/kg	76-118	28 76-118
1,2,3-Trichlorobenzene	87-61-6	5	1 ug/kg	78-136	34 78-136
1,2,3-Trichloropropane	96-18-4	5	1.7 ug/kg	74-125	30 74-125
1,2,4-Trichlorobenzene	120-82-1	5	1.2 ug/kg	82-137	32 82-137
1,2,4-Trimethylbenzene	95-63-6	5	1.1 ug/kg	77-129	29 77-129
1,3,5-Trimethylbenzene	108-67-8	5	1.3 ug/kg	79-129	31 79-129
Tetrachloroethylene	127-18-4	5	1 ug/kg	79-132	27 79-132
Toluene	108-88-3	5	1.2 ug/kg	80-123	26 80-123
Trichloroethylene	79-01-6	5	1.2 ug/kg	78-132	28 78-132
Trichlorofluoromethane	75-69-4	5	2 ug/kg	67-149	29 67-149
Vinyl chloride	75-01-4	5	1.5 ug/kg	60-145	29 60-145
Vinyl Acetate	108-05-4	25	14 ug/kg	25-164	35 25-164
m,p-Xylene		10	2.2 ug/kg	82-128	25 82-128
o-Xylene	95-47-6	5	1 ug/kg	82-126	25 82-126
1,4 -Dioxane		2	1 ug/kg	82-126	25 82-126

Dibromofluoromethane 1868-53-7

Surrogate Limits: 80-121

Toluene-D8 2037-26-5

Surrogate Limits: 71-130

4-Bromofluorobenzene 460-00-4

Surrogate Limits: 59-148

1,2-Dichloroethane-D4 17060-07-0

Surrogate Limits: 77-123

69 compounds and 4 surrogates reported in list V8260